H

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 09/998,458 | 11/29/2001 | Patrick Kusbel | UTL 00172 | 5670 |

7590 05/24/2004

Kyocera Wireless Corp.
Attn: Patent Department
P.O. Box 928289
San Diego, CA 92192-8289

| EXAMINER | |
|---|---|
| NGUYEN, SIMON | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2685 | H |

DATE MAILED: 05/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/998,458 | KUSBEL ET AL. | |
| | Examiner | Art Unit | |
| | SIMON D NGUYEN | 2685 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *29 November 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-7* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3 and 5-7* is/are rejected.

7)☒ Claim(s) *4* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 November 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

### *Drawings*

1. New corrected drawings are required in this application because the drawings are informal. Applicant is advised to employ the services of a competent patent draftsperson outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over DeLuca et al. (4,879,758).

Regarding claim 1, DeLuca discloses a method for reducing the effects of spurious frequencies in a communication device (abstract, fig.2), comprising: selecting one of the frequency range (column 1 lines 28-29); determining a clock frequency that minimizes spurious signals (column 16 lines 3-5); adjusting a clock to generate a clock signal at the clock frequency; and driving a processor with the clock

signal (column 14 lines 15-63, column 17 line 47 to column 18 line 19). However, DeLuca does not specifically disclose that the paging receiver is a wireless device operating in a plurality of frequency ranges.

It should be noted that a paging receiver receives a plurality of different frequency ranges in different bands is known to one skilled in the art. Therefore, it would have been obvious to have a paging receiver as taught by DeLuca to wirelessly receive signals in a plurality of different frequency ranges in order to improve the system performance for the wireless paging receiver.

4. Claims 2-3, 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeLuca et al. (4,879,758) in view of Robin (5,745,848).

Regarding claims 3, 5, DeLuca discloses a method for reducing spurious frequencies in a communication device (abstract, figs.2, 6-7, 11-12, 14), comprising: generating a clock signals at a clock frequency having a plurality of harmonic frequencies; generating a carrier signal at a carrier frequency; selecting (column 16 lines 4-5) and changing (column 18 lines 1-2) the clock frequency so that none of the harmonic frequencies is substantially equal to the carrier frequencies (column 12 line 8, column 13 line 62 to column 14 line 14, column 16 lines 1-5, column 17 line 47 to column 18 line 19, column 20 lines 3-29, figs.11-14). However, DeLuca does not specifically disclose the apparatus including a transmitter.

In the same field of invention, Robin discloses a controller (microprocessor) selectively adjusting a clock signal to control spurious signal interfering with the

operating of transceiver's carrier frequencies (abstract, figs.1, 5, column 3 lines 29-46, column 6, column 8 lines 17-67). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have DeLuca, modified by Robin to implement in a wireless transceiver in order to improve the signal performance in the wireless transceiver.

Regarding claim 6, this claim is rejected for the same reason as set forth in claim 5, wherein DeLuca further discloses changing a carrier frequency to a second carrier frequency and changing the microprocessor clock frequency to a new clock frequency wherein the new clock frequency does not have any harmonic frequencies that are substantially equal to the second carrier frequency (column 17 line 47 to column 18 line 19, column 20 lines 3-47).

Regarding claim 7, Deluca discloses a system for reducing the effects of spurious frequencies in a wireless communication device (paging receiver) (abstract, figs. 2, 5-7), comprising: a microprocessor (148) having a reference frequency input; a clock having an output connected to the microprocessor input and an input for selecting clock frequencies; a receiver for receiving a plurality of selectable communication frequencies, wherein the clock frequency is selected to avoid harmonic frequencies in the receiver (figs.5-7, column 14, column 20 lines 3-29). However, DeLuca does not specifically disclose the apparatus including a transmitter.

In the same field of invention, Robin discloses a transceiver (fig.1) having a port to transceive a plurality of selectable communication passbands in response to selection commands received at an input, wherein the transceiver (110, 120) comprises

a clock (126) having an output (140) connected to a controller (microprocessor) and an input for selecting clock frequencies (figs.1, 5, column 3 lines 29-46, column 6, column 8 lines 17-67). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have DeLuca, modified by Robin to implement in a wireless transceiver in order to improve the signal performance in the wireless transceiver.

Regarding claim 2, DeLuca does not specifically disclose the communication device providing a cellular frequency range and a PCS frequency range.

Robin discloses the same field of invention in which the teaching for minimize spurious signal by adjusting the clock signal can be implemented in a cellular system (AMPS, ETACS , NMT) (column 9 lines 24-40). However, Robin does not specifically disclose the teaching can be implemented in a PCS. It is believed that a dual-band a cellular and PCS) can be implemented in the transceiver of Robin which is known to one skilled in the art in order to improve the signal performance in a dual-band mobile transceiver.

***Allowable Subject Matter***

5. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 4, in the modified DeLuca system, Robin discloses the transceiver generating a center frequency on 936 MHz, a clock signal at 13 MHz at a

72th harmonic or a center frequency on 949 MHz with a 73rd harmonic of a clock signal at 13 MHz (column 4 lines 1-22, column 6 lines 37-65).

The prior art of record does not specifically disclose a transceiver generating a carrier frequency having a center frequency 900 MHz, a clock signal of 19.2 MHz with a 46th harmonic at 883.2 MHZ.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Simon Nguyen whose telephone number is (703) 308-1116. The examiner can normally be reached on Monday-Friday from 7:00 AM to 4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward F. Urban, can be reached on (703) 305-4385.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 306-0377.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Or faxed to:

(703) 872-9314, (for formal communications intended for entry)

Hand-delivered response should be brought to Crystal Park II,

2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Simon Nguyen

May 11, 2004

Simon Nguyen